

REPORT DOCUMENTATION PAGE			Form Approved OMB No. 0704-0188	
<small>Public reporting burden for this collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington, VA 22202-4302, and to the Office of Management and Budget, Paperwork Reduction Project (0704-0188), Washington, DC 20503.</small>				
1. AGENCY USE ONLY (Leave blank)	2. REPORT DATE 21 Nov. '95	3. REPORT TYPE AND DATES COVERED 10/1/88 - 12/31/94		
4. TITLE AND SUBTITLE "Sea Floor Samples Laboratory"		5. FUNDING NUMBERS G/C N00014-89-J-1034		
6. AUTHOR(S) James E. Broda - William B. Curry				
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Woods Hole Oceanographic Institution Mail Stop 22 Woods Hole, MA 02543-1541		8. PERFORMING ORGANIZATION REPORT NUMBER		
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES) Office of Naval Research Code 1125GG Ballston Tower One Arlington, VA 2217-5000		10. SPONSORING/MONITORING AGENCY REPORT NUMBER		
11. SUPPLEMENTARY NOTES		19960703 028		
12a. DISTRIBUTION/AVAILABILITY STATEMENT DISTRIBUTION STATEMENT A. APPROVED FOR PUBLIC RELEASE; DISTRIBUTION IS UNLIMITED		12b. DISTRIBUTION CODE		
13. ABSTRACT (Maximum 200 words) The principal purpose of this proposal is to provide support for personnel who are involved in the distribution of samples from the WHOI collection to investigators in the marine scientific community around the world; who sustain the implementation of established curatorial procedures to insure ready and efficient access to archived materials; and who manage the preparation of sea floor sampling tools employed in field acquisition programs. These field programs include many operations led by non-WHOI P.Is and may be executed from any vessel in the UNOLS consortium.				
14. SUBJECT TERMS		15. NUMBER OF PAGES		
		16. PRICE CODE		
17. SECURITY CLASSIFICATION OF REPORT U	18. SECURITY CLASSIFICATION OF THIS PAGE U	19. SECURITY CLASSIFICATION OF ABSTRACT U	20. LIMITATION OF ABSTRACT UL	

NSN 7540-01-280-5500

Standard Form 298 (Rev. 2-89)
Prescribed by ANSI Std. Z39-18
298-102

SEA FLOOR SAMPLES LABORATORY

James E. Broda and William B. Curry

Woods Hole Oceanographic Institution

Woods Hole MA. 02543

jbroda@whoi.edu
Phone: 508-289-2466
Fax: 508-457-2183

wcurry@whoi.edu
Phone: 508-289-2591
Fax: 508-457-2187

Long-Term Goals:

The principal purpose of this proposal is to provide support for personnel who are involved in the distribution of samples from the WHOI collection to investigators in the marine scientific community around the world; who sustain the implementation of established curatorial procedures to insure ready and efficient access to archived materials; and who manage the preparation of sea floor sampling tools employed in field acquisition programs. These field programs include many operations led by non-WHOI P.I.'s and may be executed from any vessel in the UNOLS consortium.

Accomplishments and Results:

Over the past year we have focused on three major efforts:

- *Multi- sensor Core Logger [GEOTEK]*
- *New software for data management and publication*
- *Curation of new sample suites*

In the spring of 1995 we took delivery of a new multisensor core logger [funded by an NSF grant] that allows us to make a variety of nondestructive measurements on cores; either at sea just after recovery, or after the samples are returned to shore. We prepared a new lab facility for the tool which measures: bulk density by gamma ray absorption, magnetic susceptibility, and P-wave velocity in an automated fashion over a long core's entire length. Calibration, standard preparation, and software for manipulation and presentation of the data were the main tasks we completed after setup. The MSCL is fully operational, at work in the lab, and heading for sea in January.

This year we set a goal to create an integrated software system to totally overhaul the methods by which we enter new station data into our system, manage and retrieve that data, and most importantly automate the way we will prepare lithologic core information for our core lab publications. The resultant tool which utilizes *SYBASE* as its root processing software, and *SAIPENS VISION* as a "front end" was custom built by members of WHOI's IPCL computer group working closely with core lab personnel. Data input takes place in a new "windows-like" environment with many pull-down menus for frequently used parameters. Visual core description and smear slide data are entered in a similar manner. Finally, via a graphics interface, all the information is combined and a camera ready, editable, post-script document is produced. The output, in the familiar WHOI format, is ready for publication, or via networking, available for downloading for user specific functions. The software is adaptable and simple to modify, and is sure to evolve with our needs and applications. The system is fully tested and on-line, and we are currently exploring the inclusion of a plotting and display capability [GMT] to enhance the output of sample request inquiries, as well as future Volumes [IX is in the works] of published descriptions.

Principal curatorial activities included the splitting and archiving of cores from recent cruises including: the Blake Bahama Outer Ridge, and several JGOFS legs from the Arabian Sea. These new suites of cores are all stored in the lab's new refrigerated facility to preserve their critical chemical and physical properties. Response to sample requests was, of course, part of our regular routine.

Continuing support of the WHOI sea floor samples lab by the Office of Naval Research allows us to sustain our commitment to providing the best information and easy access to our invaluable collection to ONR users and the community at large.

James E. Broda
Mclean Laboratory
Woods Hole Oceanographic Institution
Woods Hole, Mass. 02543

1995 Publications:

Source Signature Measurements of Underwater Explosives at Very High Ambient Pressures: John A Collins, James E. Broda et al.
Submitted to Journal of the Acoustical Society of America: Oct. 1995.

Panels:

National Science Foundation SBIR Panel Sept. 1995

ASA/NSF Antarctic Research Vessel Oversight Committee Oct. 1995